

Attorney Docket No.: P-4333-US3

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## AMENDMENTS TO THE CLAIMS

Please amend claim 43.

Please add new claims 53-57.

The following listing of claims replaces all versions, and listings, of claims in this application.

Listing of Claims:

1-42. (canceled)

43. (Currently amended) A system for reconstructing an image, the system comprising: a controller to:

receive selected image data from an in-vivo device, wherein said selected image data has been compressed using a dilution pattern;

pre-process the selected image data by applying error correction code, gradient evaluation, or detecting edges;

interpolate the selected image data to produce reconstructed image data, so that the reconstructed image data includes more data than selected image data; and

post-process the interpolated image data by applying a median filter.

44. (Previously Presented) The system of claim 43, wherein the controller interpolates by linear interpolation, quadratic interpolation, bicubic interpolation, polynomial interpolation, or weighted average interpolation.

45. (Previously Presented) The system of claim 43, wherein the controller is to produce additional image data resulting in a reconstructed image.

46. (Canceled)

47. (Previously Presented) The system of claim 43, wherein the controller is further to

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post-process by color suppression.

48. (Canceled)

49. (Previously Presented) The system of claim 43, wherein the controller is to generate reconstructed data based on said selected image data.

50. (Previously Presented) The system of claim 43 wherein the controller is to receive the selected image data from a swallowable capsule.

51. (Previously Presented) The system of claim 43 comprising an in vivo imager to receive a plurality of input data corresponding to an image and to produce said selected image data.

52. (Previously Presented) The system of claim 51 comprising a transmitter to transmit said selected image data.

53. (New) The system of claim 43 wherein the dilution pattern used to compress the selected image data comprises selecting every n'th pixel in each row for transmission.

54. (New) The system of claim 53 wherein all pixels chosen in any row represent the same color.

55. (New) The system of claim 53 wherein n = 4.

56. (New) The system of claim 43 wherein the dilution pattern used to compress the selected image data is determined based on operating conditions of the in vivo device.

57. (New) The system of claim 56 wherein the operating conditions are selected from a group consisting of: position of the in vivo device, pH, temperature, ambient lighting or color conditions.